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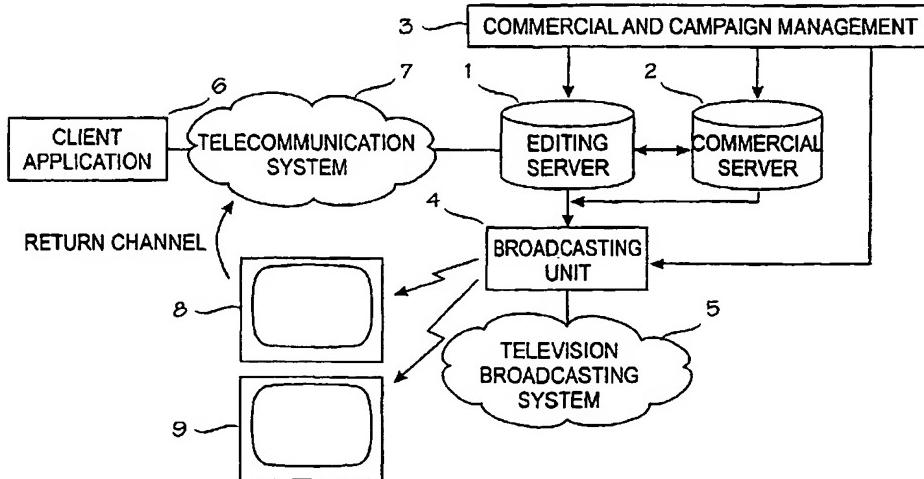
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(54) Title: METHOD AND BROADCASTING SYSTEM FOR BROADCASTING A TELEVISION COMMERCIAL



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(57) Abstract: The invention relates to a television broadcasting system and to a method for broadcasting television commercials. According to the invention, a unit (1) for editing commercials is arranged in association with a television broadcasting unit responsible for timing and inserting the commercials into the rest of the programme stream to be broadcast. The editing unit has a limited and automated capacity of inserting new or modified contents, such as text, image elements and/or audio, into the particular pre-produced original commercial in order to provide a new version of the commercial film to be broadcast. The editing unit (1) comprises telecommunication means enabling a customer (advertiser) to communicate with the editing unit over a telecommunication network (7) and thus, as a remote control function, to make limited changes or insert text, image elements and/or audio even just before the broadcasting moment, although the commercial is already stored (2) in the broadcasting unit and scheduled to be broadcast.



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KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
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## METHOD AND BROADCASTING SYSTEM FOR BROADCASTING A TELEVISION COMMERCIAL

### FIELD OF THE INVENTION

[0001] The invention relates to broadcasting a television commercial  
5 in a television broadcasting system.

### BACKGROUND OF THE INVENTION

[0002] It is a long and expensive process to produce a television commercial or advertisement. On the basis of an assignment made by an advertiser, an advertising agency lays out a basic structure for the commercial. A  
10 production company then designs and produces the actual commercial film. Making a commercial film requires similar resources and functions to those employed in 'normal' film-making: a manuscript, director, cameramen, actors and actresses, sets, sound environments, etc. A time-consuming, expensive high-quality production process usually results in a commercial film less than  
15 thirty seconds long. It takes about 100,000 to 500,000 FIM and a lot of time, typically from six to eight weeks, to produce a commercial film in Finland. The production company delivers the commercial film to a television company, which, at selected points in time reserved for the commercial, broadcasts the film as such.

20 [0003] Since it is so expensive to produce a commercial film, it would be desirable that the commercial film could be broadcast more than just a few times. If the commercial film is to be modified, the modifications will be carried out by the production company, which, using the normal film production technology, carries out additions or changes to the commercial film and sends  
25 the new version of the commercial film to the television company. Consequently, the changes to commercial films are usually carried out at least days, often weeks, before a particular commercial is to be broadcast. It is also relatively expensive to modify the commercial films.

[0004] The design and production costs of television commercial  
30 films jeopardise the increasing volume of television advertising. The total costs of a television commercial campaign are manifold in comparison to those of an advertising campaign in newspapers and journals. The short lifetime of a television commercial and the required total investment pose a huge obstacle to new advertisers with relatively small advertising budgets. It is particularly difficult to produce commercials designed for short or local campaigns in particu-

lar. The long production process of commercials makes it impossible to produce commercials that would pertain to utterly current affairs or react rapidly to the needs of the advertiser. Meanwhile, a distinguishable and interesting television commercial becomes more and more influential. A new technology is 5 thus needed to enable the cost effectiveness of a spot advertisement to be improved and the versatility of the contents of such advertisements to be enhanced.

#### BRIEF DESCRIPTION OF THE INVENTION

[0005] An object of the invention is to provide a technology for 10 broadcasting commercials so as to enable more cost-effective television commercials whose contents can be modified in a shorter period of time.

[0006] This object is achieved by a method according to claim 1, and a broadcasting system according to claim 6.

[0007] According to the basic idea of the invention, a television 15 broadcasting unit provides a customer with a limited capability of changing the contents of a pre-produced commercial that has already been delivered to a television company. A unit for editing commercials is arranged in association with the television broadcasting unit responsible for timing and inserting the commercials into the rest of the programme stream to be broadcast. The editing 20 unit has a limited and automated capability of inserting new or modified contents, such as text, image elements and/or audio, into the particular pre-produced basic commercial in order to provide a final version of the commercial for broadcasting. This enables producing new versions of the commercial film besides the original one designed and produced by the production company. The desired changes are specified by the editing unit. In a preferred embodiment of the invention, the editing unit comprises telecommunication means 25 enabling a customer (advertiser) to communicate with the editing unit over a telecommunication network and thus, as a remote control function, to limitedly change or insert text, image elements and/or audio even just before the broadcasting moment, although the commercial is already stored in the broadcasting unit to be broadcast as scheduled. In an embodiment of the invention, the editing 30 unit stores the contents, specified by the advertiser as a remote control function or otherwise, separately from the original commercial and, in a synchronized manner, inserts the specified contents into pre-produced television 35 commercial only at the broadcasting moment. In a second embodiment of the

invention, the editing unit automatically inserts the contents specified by the advertiser as a remote control function or otherwise into advertiser's commercial before broadcasting and stores the edited commercial film to wait for being broadcast. In the latter embodiment, the broadcast stream is easier to manage  
5 and errors become much less probable. In a preferred embodiment of the invention, when designing the original basic commercial and determining the visible and audible narrative material for the commercial, the possibility that some varying additional information might be inserted into the commercial will be taken into account in the sound environment and/or in the way in which the  
10 image area is used. According to the principles of the invention, the broadcasting system of the television company can then carry out the changes in the text, image elements and/or audio at these predetermined points in the commercial where the possibility of later changes has been taken into account. In yet another embodiment of the invention, several different versions of the contents  
15 (new or modified text, image elements and/or audio) have been specified to the editing unit, and one of these versions is inserted into the commercial according to a suitable criterion, such as the broadcasting moment or target audience.

[0008] The invention enables the modified contents to be synchronized into the broadcast stream in the broadcasting unit with no need to change the contents of the original commercial. The existing digital broadcasting technology and advertising automation can be commercialized. The commercials produced by the customer can be utilized more cost-effectively and in a more versatile manner. There is no need for the original television commercial to contain all the information contents, nor does the production unit have to produce several different versions of the commercial film. The cost-effective method of the invention for limitedly changing the information contents of the commercial increases the volume of special offers advertising since various offers can be added to the original commercial for different campaigns. As far  
25 as the television company is concerned, being thus able to manage last-minute changes, the company will also be able to improve its customer service. Furthermore, the concept according to the invention closely relates to the normal operation of a television company, thus being an integral part thereof. The invention further enables the lifetime of an expensive original commercial to be  
30 extended since the contents of the commercial can be flexibly changed later.  
35

## BRIEF DESCRIPTION OF THE DRAWINGS

[0009] In the following, the invention will be described by means of the preferred embodiments and with reference to the accompanying drawings, in which

5 [0010] Figure 1 is a schematic system diagram showing how television commercials are produced and broadcast according to the invention, and

[0011] Figure 2 schematically illustrates a television commercial produced according to the invention.

## DESCRIPTION OF PREFERRED EMBODIMENTS

10 [0012] Referring to Figure 1, an external programme production company conventionally produces an original commercial film, which is stored in a digital form in a commercial server 2 of a broadcasting system of a television company. Furthermore, information about the points in time at which the original commercial film stored in the commercial server 2 is to be broadcast is  
15 stored in a commercial and campaign management system 3. At a broadcasting moment, the management unit 3 commands the commercial server 2 to transfer the digital commercial film to a television broadcasting unit 4, which, at a correct point in time, inserts the commercial into the rest of the programme stream being broadcast to television receivers 8 and 9 via a television broadcasting system 5. Such advertising automation and broadcasting automation provided by the management unit 3, commercial server 2 and the broadcasting unit 4 are prior art known per se to one skilled in the art. Using this technology, the original commercial film stored in the commercial server, as well as other commercials not to be changed, can be broadcast as such.

20 [0013] In the embodiment of the invention shown in Figure 1, such commercial and broadcasting automation is further provided with a commercial editing server 1 enabling digital content elements, such as text, image elements or audio information, to be inserted or changed in the original commercial film stored in the commercial server 2. Therefore, customer-specific digital content elements that can be digitally added to the original commercial film are stored or such elements can be specified in the editing server 1. The editing server 1 further comprises a telecommunications circuitry and software to enable a customer 6 to communicate with the editing server 1 via a public telecommunication system 7 and to limitedly change the contents of the particular  
30 customer's commercials by specifying the above-mentioned content elements.  
35

In a preferred embodiment of the invention, the editing server 1 comprises a World Wide Web (WWW) site constituting a user interface enabling the customer to modify the contents of the customer's commercials by means of a computer equipped with a conventional web browser. Since the WWW site and  
5 web browsers are capable of presenting and processing multimedia, the user may view the original commercial film, add some new text material thereto, transfer audio and image files from a customer application 6 to the commercial film and, eventually, preview the final version of the commercial film on the WWW pages. The customer may also command the editing server 1 to store  
10 the edited digital commercial film in the commercial server 2. However, the commercial server 2 preferably keeps the original basic commercial film in store in case the commercial is at some future time to be broadcast in its original form or some new versions are to be edited on the basis of the original film. In addition, via the editing server 1, the customer is able to communicate with  
15 the commercial management system 3 and to determine therein the points in time at which the new version of the commercial film is to be broadcast, and possibly some further information. The management system 3 then commands the commercial server 2 and the broadcasting unit 4 to broadcast the edited version of the commercial (instead of the original one) to the receivers 8 and 9  
20 at a desired broadcasting moment.

[0014] In another embodiment, the editing server 1 only stores the edited content elements linked to certain points at the original commercial in the commercial server in its own database or in the commercial server 2. Furthermore, information indicating which content elements should be added to  
25 the original commercial at which points in time is stored in the commercial management system 3 in order to produce a desired version of the commercial. At the desired broadcasting moment, the management system 3 then commands the editing server 1, the commercial server 2 and/or the broadcasting unit 4 to add the specified content elements to the original commercial in a synchronized manner, and further to integrate the version of the commercial thus edited into the broadcast stream.  
30

[0015] Two or more different edited versions of the commercial may be stored in the commercial server 2, one such version being selected to be broadcast according to a particular criterion. Similarly, a number of different  
35 content elements or content element groups may be stored in the editing server 1 or in the commercial server 2, and the broadcasting system automati-

cally selects some of these elements or groups to be added to the original commercial film according to a particular criterion. Such a criterion may be e.g. the broadcasting moment, in which case the contents of the commercial change in terms of time. For instance, in the course of the advertising campaign, the contents may automatically change day by day, or the commercials may have different contents in the morning and in the evening. Another criterion may be e.g. the target audience of the campaign. For example, the commercials may have different contents in connection with programmes for young people and during current affairs programmes and news. Yet another contents criterion for the commercials may be e.g. information on the viewers or their wishes received through a return channel or even a choice made by a viewer to be delivered through the return channel. Such a return channel has been specified at least in the technical specifications for a digital television system called Digital Video Broadcasting (DVB). In other words, the invention enables the implementation of consumer-group-specific and/or even consumer-specific television advertising that changes in terms of time.

[0016] As stated above, the changing content elements may comprise text, image elements and/or audio information (voice). The content elements are preferably in a digital form. The original commercial film is preferably designed to readily enable changing additional information to be inserted into the film. In other words, the original commercial film may comprise e.g. predetermined areas or fields to receive the changing text or graphic image element. Such a point or field may have an identification code of its own. The text or image element created by the user and provided with a respective identifier may automatically and seamlessly be inserted at a predetermined point in the commercial film. Images may even be appropriately scaled or text automatically formatted according to values specified for the particular point. For audio information, the original commercial film may be provided with a pre-indexed point from which the changing audio information can be set to automatically start playing so as to be seamlessly integrated into the rest of the commercial.

[0017] Figure 2 schematically illustrates a commercial picture implemented according to the invention. The original commercial film is provided with a field 22 wherein, according to the invention, a customer is able to specify the text to be changed. The original commercial film may comprise a default text, which will be presented if no new text has been specified in the editing server 1. The textual contents of the field 22 may relate e.g. to a product 23

shown in the commercial film. Also this product image may have been specified as a changing image element, i.e. the customer can change the image element of the presented product by specifying a new image element by means of the editing server 1. The original basic commercial film with its sound environment can be run on the background of the elements 22 and 23. According to the invention, however, new contents, e.g. the same information as seen in the field 22 presented as spoken information, can be inserted into this sound environment or the contents can be changed. Again, this audio information can be added from the editing server 1 in the above-described manner. When the original commercial film is designed taking such changing information into account, the result is a high-quality product that cannot be distinguished from a conventional commercial produced in a special production company.

[0018] The present invention can be applied both to conventional analogue television broadcasting systems and to new digital television systems.

[0019] The description of the preferred embodiments of the invention is only intended to illustrate the present invention without restricting it to the examples. The implementation and details of the invention may vary within the spirit and scope of the accompanying claims.

## CLAIMS

1. A method for broadcasting a television commercial, the method comprising the steps of
  - producing a commercial,
- 5                   transferring the commercial to a broadcasting unit of a television company to be broadcast to television receivers, **characterized** in that the method further comprises the step of
  - inserting, in the broadcasting unit, limitedly one or more new or modified content elements, such as new or modified text, image elements and/or audio, into said produced commercial in order to provide a final version
  - 10                  of the commercial to be broadcast,
  - broadcasting the commercial.
2. A method as claimed in claim 1, **characterized** in that an advertiser limitedly changes the text, image elements and/or audio of the commercial in the broadcasting unit as a remote control function over a telecommunication connection before the commercial is broadcast, and that the broadcasting unit broadcasts the changed commercial to the television receivers.
- 15                  3. A method as claimed in claim 1 or 2, **characterized** in that the changes to the text, image elements and/or audio are carried out at predetermined points in the commercial that take a potential later change into account.
- 20                  4. A method as claimed in claim 1, 2 or 3, **characterized** in that the changes are added to the commercial and the changed commercial is stored before being broadcast, and that the stored and changed commercial is broadcast at a later point in time allocated to the commercial.
- 25                  5. A method as claimed in claim 1, 2 or 3, **characterized** in that the changed text, image elements and/or audio is/are stored separately from the original commercial, and that the changed text, image elements and/or audio is/are added to the original commercial in a synchronized manner only at the broadcasting moment of the commercial.
- 30                  6. A method as claimed in any one of the preceding claims, **characterized** in that different content elements are automatically inserted into the commercial, depending on the broadcasting moment.

7. A method as claimed in any one of the preceding claims, characterized in that different content elements are automatically inserted into the commercial, depending on the target audience or viewer profile of a particular advertising campaign.
- 5        8. A broadcasting system for broadcasting a television commercial, the system comprising  
            means (2) for storing a pre-produced commercial to wait for being broadcast to television receivers,  
            means (3, 4, 5) for broadcasting the commercial in a programme stream at a predetermined point in time allocated to the commercial,  
10        characterized in that the broadcasting system further comprises  
            an editing unit (1) for automatically inserting one or more new or modified content element, such as new or modified text, image elements and/or audio, into the pre-produced commercial in order to provide a final version of the commercial to be broadcast.
- 15        9. A broadcasting system as claimed in claim 8, characterized in that the editing unit (1) comprises telecommunication means for enabling an advertiser (6) to specify changes to the text, image elements and/or audio of the pre-produced commercial over a telecommunication channel (7) as a remote control function before the commercial is broadcast.
- 20        10. A system as claimed in claim 8 or 9, characterized in that the editing unit (1) carries out the changes to the text (22), image elements (23) and/or audio at predetermined points in the commercial that take a potential later change into account.
- 25        11. A system as claimed in claim 8, 9 or 10, characterized in that the editing unit (1) is arranged to add the changes made by the advertiser to the commercial immediately and to store the changed commercial film in said storage means (2), and that the broadcasting system is arranged to broadcast the changed commercial from said storage means (2) at a later point in time allocated to the commercial.
- 30        12. A system as claimed in claim 8, 9 or 10, characterized in that the editing unit (1) is arranged to store the changed text, image elements and/or audio separately from the original commercial and to add the changed text, image elements and/or audio to the commercial in a synchronized manner only at the broadcasting moment of the commercial.

13. A system as claimed in any one of claims 8 to 12, **characterized** in that the editing unit (1) is arranged to store several different content versions for a single commercial and to insert one such version in a particular commercial to be broadcast at a given moment, according to a predetermined criterion.

5        14. A system as claimed in claim 13, **characterized** in that said criterion is the broadcasting moment of the commercial.

10      15. A system as claimed in any one of claims 8 to 14, **characterized** in that the editing unit (1) comprises a user interface of a WWW type, which can be used by the advertiser (6) over the telecommunication connection (7) by means of terminal equipment, such as a personal computer, equipped with a browser in order to change the commercial.

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Fig. 1

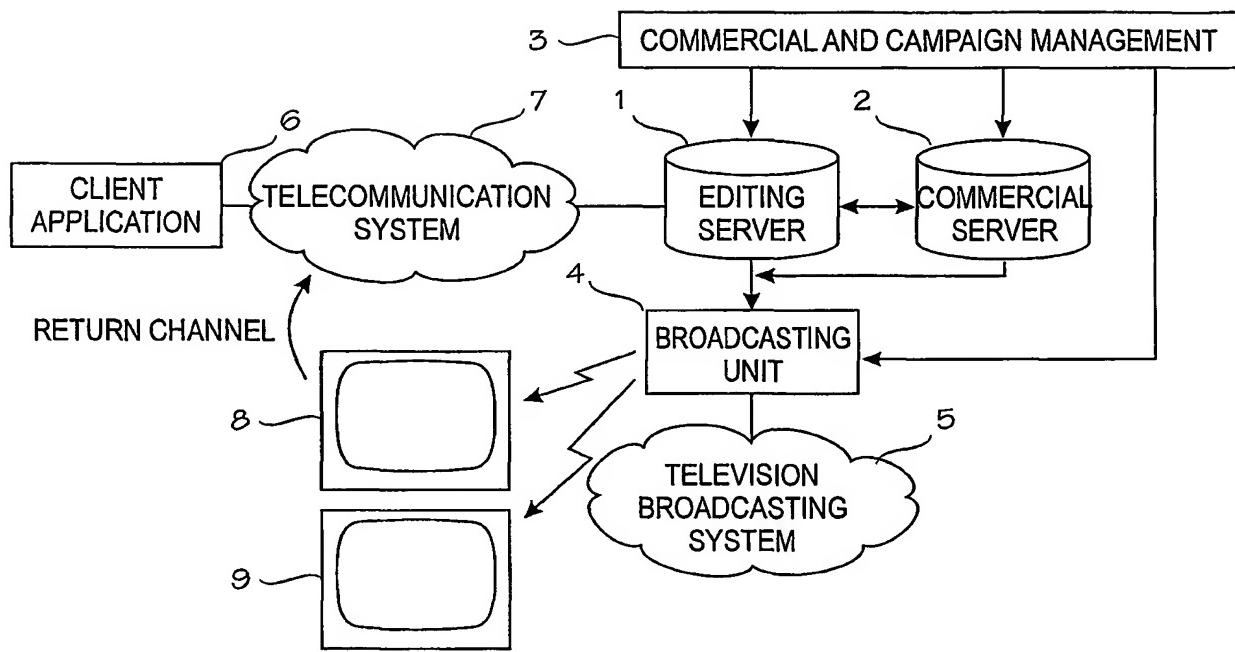
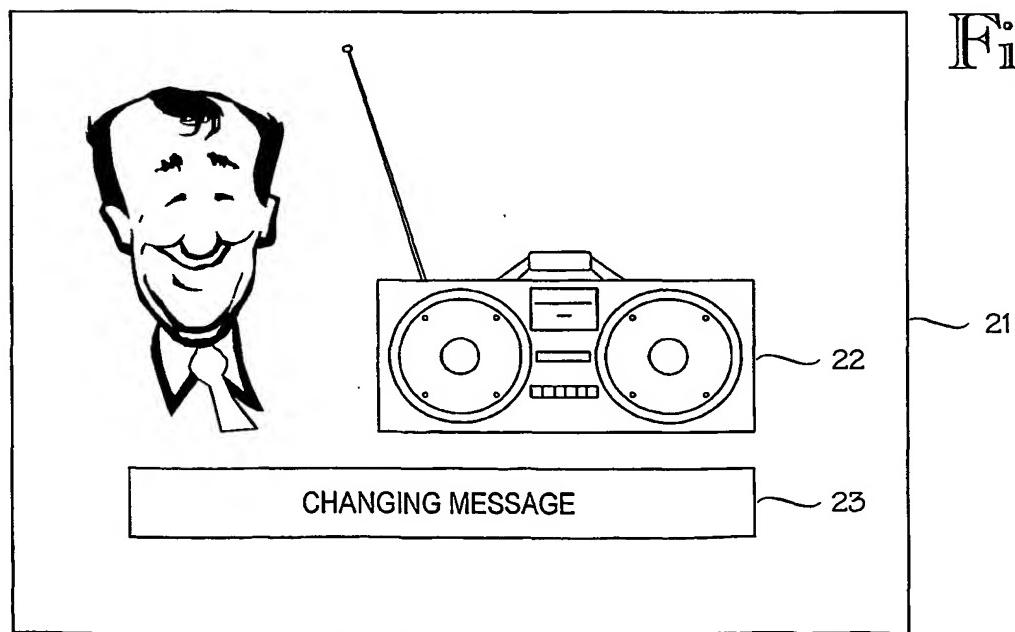


Fig. 2



## INTERNATIONAL SEARCH REPORT

1

International application No.

PCT/FI 01/01015

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7: H04N 5/76**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**IPC7: H04N, H04M, H04H, G06F**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

**SE,DK,FI,NO classes as above**

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**EPO-INTERNAL, WPI DATA, PAJ**

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1032148 A2 (ADVENT TELEVISION LTD.), 30 August 2000 (30.08.00), abstract  --	1-15
A	US 5960074 A (CLARK, C.), 28 Sept 1999 (28.09.99), abstract  --	1-15
A	US 5216515 A (STEELE, G.G. ET AL), 1 June 1993 (01.06.93), abstract  --	1-15
A	US 4724491 A (LAMBERT, T.), 9 February 1988 (09.02.88), abstract  -- -----	1-15

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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14 March 2002	15 -03- 2002
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

28/01/02

PCT/FI 01/01015

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
EP 1032148 A2	30/08/00		AU 732082 B AU 1354200 A BR 9904205 A DE 1032148 T ES 2156844 T JP 2000244427 A SG 77665 A TW 442305 B WO 0066205 A	12/04/01 17/08/00 19/09/00 19/07/01 01/08/01 08/09/00 16/01/01 00/00/00 09/11/00
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